

AMENDMENT TO THE CLAIMS

1-276. (Canceled)

277. (Currently Amended) Medical apparatus for placement in a patient, comprising:
implantable circuitry, which is adapted to be placed in the patient;
a lead wire; and
a hollow tube, which is entirely electrically-conductive, ~~and is soldered directly to the circuitry, and crimped which hollow tube is mechanically coupled to the lead wire~~
so as to be mechanically and electrically coupled thereto.

278. (Canceled)

279. (Currently Amended) The apparatus according to claim ~~347~~ 277, wherein a portion of the lead wire is disposed within the hollow tube, and wherein the hollow tube is crimped to the portion of the lead wire.

280. (Previously Presented) The apparatus according to claim 277, wherein the lead wire comprises MP35N.

281. (Previously Presented) The apparatus according to claim 277, wherein the lead wire comprises of platinum/iridium.

282. (Previously Presented) The apparatus according to claim 277, wherein the lead wire comprises 1-60% iron by weight.

283. (Previously Presented) The apparatus according to claim 277, wherein the lead wire comprises 1-40% iron by weight.

284. (Previously Presented) The apparatus according to claim 277, wherein the lead wire comprises 1-20% iron by weight.

285. (Currently Amended) The apparatus according to claim ~~346~~ 277, wherein the hollow tube is coated with gold prior to soldering directly to the circuitry.

286. (Previously Presented) The apparatus according to claim 277, wherein the hollow tube is treated with phosphoric acid prior to soldering to the circuitry.

287. (Canceled)

288. (Currently Amended) The apparatus according to claim 277, wherein the circuitry is adapted to be incorporated in ~~the~~ a catheter.

289. (Previously Presented) The apparatus according to claim 277, wherein the lead wire comprises a silver core.

290. (Previously Presented) The apparatus according to claim 277, wherein the hollow tube comprises stainless steel.

291. (Previously Presented) The apparatus according to claim 277, wherein the circuitry comprises a sensor.

292. (Previously Presented) The apparatus according to claim 291, wherein the sensor comprises a pressure sensor.

293. (Previously Presented) The apparatus according to claim 291, wherein the sensor comprises a chemical sensor.

294. (Previously Presented) The apparatus according to claim 291, wherein the sensor comprises an electrode, adapted to sense electrical activity in tissue of the patient where the apparatus is placed.

295. (Previously Presented) The apparatus according to claim 291, wherein the sensor comprises a temperature sensor.

296. (Previously Presented) The apparatus according to claim 291, wherein the sensor comprises a flow sensor, adapted to sense a flow of blood in a vicinity of the apparatus.

297. (Previously Presented) The apparatus according to claim 277, wherein the circuitry comprises an active element.

298. (Previously Presented) The apparatus according to claim 297, wherein the active element comprises a stimulating electrode.

299. (Previously Presented) The apparatus according to claim 297, wherein the active element comprises a light source adapted to facilitate photodynamic therapy.

300. (Previously Presented) The apparatus according to claim 297, wherein the active element comprises an electroactive polymer.

301. (Previously Presented) The apparatus according to claim 297, wherein the active element comprises a mechanical actuator.

302-317. (Canceled)

318. (New) A method of manufacturing a medical apparatus for placement in a patient comprising:

- providing implantable circuitry, which is adapted to be placed in the patient;
- providing a lead wire;
- providing an electrically-conductive hollow tube;
- forming a mechanical and electrical connection directly between a first end of the hollow tube and the lead wire without solder; and
- soldering a second end of the hollow tube to the circuitry.

319. (New) The method of claim 318, wherein mechanically coupling a first end of the hollow tube to the lead wire comprises:

- placing a portion of the lead wire within the first end of the hollow tube; and
- crimping the hollow tube over the portion of the lead wire.

320. (New) The method of claim 318, wherein the lead wire comprises MP35N.

321. (New) The method of claim 318, wherein the lead wire comprises platinum/iridium.

322. (New) The method of claim 318, wherein the lead wire comprises 1-60% iron by weight.

323. (New) The method of claim 318, wherein the lead wire comprises 1-40% iron by weight.

324. (New) The method of claim 318, wherein the lead wire comprises 1-20% iron by weight.

325. (New) The method of claim 318, further comprising coating the hollow tube with gold prior to soldering a second end of the hollow tube to the implantable circuitry.

326. (New) The method of claim 318, wherein the hollow tube is treated with phosphoric acid prior to soldering a second end of the hollow tube to the implantable circuitry.
327. (New) The method of claim 318, wherein the hollow tube comprises stainless steel.
328. (New) The method of claim 318, wherein the circuitry comprises a sensor.
329. (New) The method of claim 328, wherein the sensor comprises a pressure sensor.
330. (New) The method of claim 328, wherein the sensor comprises a chemical sensor.
331. (New) The method of claim 328, wherein the sensor comprises an electrode, adapted to sense electrical activity in tissue of the patient where the apparatus is placed.
332. (New) The method of claim 328, wherein the sensor comprises a temperature sensor.
333. (New) The method of claim 328, wherein the sensor comprises a flow sensor, adapted to sense a flow of blood in a vicinity of the apparatus.
334. (New) The method of claim 318, wherein the circuitry comprises a stimulating electrode.
335. (New) The method of claim 318, wherein soldering a second end of the hollow tube to the circuitry comprises soldering the second end of the hollow tube to the circuitry after the mechanical and electrical connection is formed between the first end of the hollow tube and the lead wire.

336. (New) Medical apparatus for placement in a patient comprising:
implantable circuitry, which is adapted to be placed in the patient;
a lead wire;
an electrically-conductive hollow tube directly soldered to the circuitry; and
a mechanical and electrical connection directly between the hollow tube and the lead wire
that is formed without solder.
337. (New) The apparatus according to claim 336, wherein a portion of the lead wire is
disposed within the hollow tube, and wherein the hollow tube is crimped to the portion of the
lead wire thereby forming the mechanical and electrical connection.
338. (New) The apparatus according to claim 336, wherein the lead wire comprises MP35N.
339. (New) The apparatus according to claim 336, wherein the lead wire comprises
platinum/iridium.
340. (New) The apparatus according to claim 336, wherein the lead wire comprises 1-60%
iron by weight.
341. (New) The apparatus according to claim 336, wherein the lead wire comprises 1-40%
iron by weight.
342. (New) The apparatus according to claim 336, wherein the lead wire comprises 1-20%
iron by weight.
343. (New) The apparatus according to claim 336, wherein the hollow tube comprises a gold
coating.

344. (New) The apparatus according to claim 366, wherein the hollow tube comprises stainless steel.

345. (New) The apparatus according to claim 366, wherein the circuitry comprises a pressure sensor.

346. (New) The apparatus according to claim 366, wherein the circuitry comprises a chemical sensor.

347. (New) The apparatus according to claim 366, wherein the circuitry comprises an electrode, adapted to sense electrical activity in tissue of the patient where the apparatus is placed.

348. (New) The apparatus according to claim 366, wherein the circuitry comprises a temperature sensor.

349. (New) The apparatus according to claim 366, wherein the circuitry comprises a flow sensor, adapted to sense a flow of blood in a vicinity of the apparatus.

350. (New) The apparatus according to claim 366, wherein the circuitry comprises a stimulating electrode.

351. (New) The apparatus according to claim 366, wherein the circuitry comprises a light source adapted to facilitate photodynamic therapy.

352. (New) The apparatus according to claim 366, wherein the circuitry comprises an electroactive polymer.

353. (New) The apparatus according to claim 366, wherein the circuitry comprises a mechanical actuator.